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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/698,659

10/31/2003

James A. Leistra

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EXAMINER

TSOY, ELENA

ART UNIT

PAPER NUMBER

1762

MAIL DATE

DELIVERY MODE

06/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/698,659

Applicant(s)

LEISTRA ET AL.

Examiner

Elena Tsoy

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1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16-40 is/are pending in the application.
- 4a) Of the above claim(s) 4, 13, 16-23, 28, 30-36, 39 and 40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-12, 14, 24-27, 29, 37 and 38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

Amendment filed on May 16, 2007 has been entered. Claim 15 has been cancelled.

Claims 1-14, 16-40 are pending in the application. Claims 4, 13, 16-23, 28, 30-36, and 39-40 are withdrawn from consideration as directed to a non-elected invention.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Rejection of claims 1-3, 5-9, 11-12, 14, 24-27, 29, and 37-38 under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wessel et al (US 20030008196) has been withdrawn due to amendment.
3. Rejection of claims 1-3, 5-9, 11-12, 14, 24-27, 29, and 37-38 under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Menjak et al (US 20030059664) has been withdrawn due to amendment.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The Examiner Note: an inadvertent typographical error has occurred in the description of the ground of rejection of claim 15 set forth in paragraph 7 of Office Action mailed on 2/16/2007. The Examiner has applied Wessel to address porosity limitation of claim 15. Therefore, the ground of rejection of 15 should have read correctly as: Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wessel et al. or Menjak et al. in view of Wessel et al.

5. Claims 1-3, 5-9, 11-12, 14, 24-27, 29, and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wessel et al.

Wessel et al. are applied here for the same reasons as set forth in paragraph 2 of the Office Action mailed on 2/16/2007. Wessel et al. further teach that according to the current state of the art, all fuel cells have gas-permeable, porous, so-called three-dimensional electrodes whereas the membrane (electrolyte) present in all fuel cells forms a *gas-tight* barrier between the two electrodes and ensures ionic current transport in the fuel cell (See P5). Since a layer comprising a catalyst is located between electrode and membrane, it should have porosity of either electrode or porosity of a *gas-tight* (claimed porosity of *less than 20%*) membrane. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made a fuel cell in the cited prior art using a layer of peroxide decomposition catalyst having porosity of a *gas-tight* (claimed porosity of *less than 20%*) membrane, as required by Amendment.

6. Claims 1-3, 5-9, 11-12, 14, 24-27, 29, and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asukabe et al. (US 6,335,112) in view of Wessel et al.

The cited prior art is applied here for the same reasons as set forth in paragraph 5 of the Office Action mailed on 2/16/2007. Wessel et al. are applied here for the same reasons as above.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made a fuel cell in the cited prior art using a layer of peroxide decomposition catalyst having porosity of a *gas-tight* (claimed porosity of less than 20%) membrane, as required by Amendment.

7. Claims 1-3, 5-9, 11-12, 14, 24-27, 29, and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Menjak et al in view of Wessel et al.

Menjak et al are applied here for the same reasons as set forth in paragraph 5 of the Office Action mailed on 2/16/2007. Wessel et al are applied here for the same reasons as above.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made a fuel cell in the cited prior art using a layer of peroxide decomposition catalyst having porosity of a *gas-tight* (claimed porosity of less than 20%) membrane, as required by Amendment.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wessel et al/Asukabe et al in view of Wessel et al/Menjak et al in view of Wessel et al /, further in view of Nakawa et al (JP 07024315) for the reasons of record set forth in paragraph 6 of the Office Action mailed on 2/16/2007 and for the reasons discussed above.

Response to Arguments

9. Applicants' arguments filed May 16, 2007 have been fully considered but they are not persuasive.

Applicants argue that none of the art of record discloses or suggests the specific claimed structure of claims 1 and 25, and therefore that these claims are in condition for allowance.

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Declarations with data were submitted in related 7,112,386 patent, which are equally applicable in the present application, established that the layer of the present invention is different from the adjacent anode or cathode, and that the presence of the layer of the present invention substantially reduced harmful degradation of the membrane as compared to membrane electrode assemblies without the protective layer of the present invention.

The Examiner respectfully disagrees with this argument. It is well settled that the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). Since the layer is present between electrode and a membrane in membrane electrode assemblies of the cited prior art, harmful degradation of the membrane of the cited prior art would also be substantially reduced compared to membrane electrode assemblies without the protective layer. Therefore, Declarations data would not show unexpected results.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Thursday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy
Examiner
Art Unit 1762

ELENA TSOY
PRIMARY EXAMINER



June 11, 2007